Nolinae from Tanganyika collected by Dr. Christa Lindemann and Nina Pavlitzki

by D. S. Fletcher

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The material studied for this short paper is primarily that collected in Tanganyika during the latter part of 1952 by Dr. Christa Lindemann and Frau Nina Pavlitzki and by Dr. Lindemann again during the latter part of 1958; combined, the two collections consist of 38 specimens representing 19 species. With the exception of *Celama musculalis* Saalmüller, all the known species listed are recorded from Tanganyika for the first time; three species are described as new to science. Because of inadequate material a number of specimens are placed to genera only.

Certain additional material from equatorial Africa, from the collections of the Zoological Museum in Munich and from the British Museum (Natural History), was also studied and from amongst this two further species are de-

scribed as new, Nola spermophaga and Nola conspicillaris.

In listing the known species, references to their original descriptions and any synonymy are given, together with their previously known distribution. The colour names used in the descriptions are taken from Ridgway's "Color Standards and Color Nomenclature".

Unless otherwise stated, all localities are in Tanganyika and all specimens are in the Zoological Museum in Munich.

Celama sp.

Songea, Litembo, 1500 m., 20. IV. 1952, 1 \circlearrowleft ; Songea, Uwemba, 2000 m., 9. XI. 1958, 1 \circlearrowleft .

Closely related to *Celama iridescens* Van Son (1933) described from Cape Province and Transvaal and subsequently noted from Natal; possibly a subspecies.

Celama sp.

Kilimandjaro, Marangu, 1500 m., 21. X. 1952, 1 Q.

Closely related to and possibly a subspecies of Celama adelpha Fletcher (1958), described from Western Uganda.

Celama sp.

Kilimandjaro, Bismarckhütte, 3000 m., 18. X. 1958, 1 Q. Almost certainly represents an undescribed species.

Celama melaleuca Hampson

Celama melaleuca Hampson, 1901. Ann. Mag. nat. Hist., (7) 8:177.

Celama melaleuca Hampson, 1914, Cat. Lep. Phalaenae B. M., Suppl., 1:404, pl. 23:14.

Meru, Momella, 1800 m., 5. X. 1958, 1 ♀

Distribution: Western Kenya.

Celama undulata sp. n. (Plate I, figs. 5, 6; Plate II, figs. 9-11)

32 18 mm. Male antenna fasciculate, the longest cilia three times as long as diameter of shaft. Fore wing white irrorate with tawny olive and smoke gray and, very lightly, with fuscous black; transverse fasciae slenderly and brokenly black.

Genitalia as illustrated.

The female genitalia suggest an affinity with *C. adelpha* Fletcher (1958), from which they differ in the shape of the ostium bursae; in *undulata* it is U-shaped (see fig. 11) and in *adelpha* it is slenderly O-shaped. The male genitalia are distinctive in having a shallowly bilobate valve; the species is placed provisionally between that section of *Celama* with a fully bilobate valve and that section with a unilobate valve.

Meru, Momella, 1800 m., 5. X. 1958 (C. Lindemann), holotype ♂; ibid., 12. X. 1958, allotype ♀.

Celama imitata Van Son

Celama imitata Van Son, 1933, Ann. Transvaal Mus., 15 (2): 199, pl. 5:3a-c; pl. 8:5.

Songea, Litembo, 1500 m., 14.—17. IX. 1952, 2 \circlearrowleft , 1 \circlearrowleft ; Songea, Uwemba, 2000 m., 9. XI. 1958, 1 \circlearrowleft .

Kenya: Port Victoria, 10, VII. 1949, (H. B. D. Kettlewell), 1 \circlearrowleft .

Distribution: Southern Rhodesia; Transvaal.

Celama sp.

Usambara Berge, Sakarani, 1500 m., 14. X. 1952, 1 $_{\circlearrowleft}$; ibid., 10. XI. 1952, 1 $_{\circlearrowleft}$.

Closely related to the preceding species, but only one sex known.

Celama melanoscelis Hampson

Distribution: West Africa, Sierra Leone to Nigeria; Belgian Congo, Kivu; Kenya; Nyasaland; Natal.

Celama musculalis Saalmüller subsp.

Nola musculalis Saalmüller, 1880, Ber. Senckenberg. Ges., 1879:261.
Nola musculalis Saalmüller, 1880, Lep. Madagascar, 1:171, pl. 6:85.

Lindi, 300 m., 3. VIII. 1952, 2 QQ.

In the broad sense *C. musculalis* is distributed throughout tropical Africa and the Mascarene region; the genitalia of both sexes, however, display a certain amount of geographical variation. Specimens from Madagascar differ from those from South Africa (treated as *Celama socotrensis* Hampson by Van Son, 1933, Ann. Transvaal Mus., 15 [2]:193, pl. 4:6a—c) and these differ from specimens examined from Kenya; the true *socotrensis* Hampson (1901) is again distinct. Only further study will shew whether this variation is part of a cline or whether distinct subspecies can be separated.

Nola dochmographa Fletcher

Nola dochmographa Fletcher, 1958, Ruwenzori Expedition 1952. 1 (4): 57, figs. 13, 16, 27. Usambara-Berge, Sakarani, 9.—17. XI. 1952, 1 \bigcirc 7, 6 \bigcirc 9; Soni, 1100 m., 20. XII. 1958, 1 \bigcirc .

Kilimandjaro, Marangu, 1500 m., 1.—15. XI. 1952, 1 7; all in Zool. Mus., Munich.

Belgian Congo: Marungu Plateau, 7000 ft., II. 1922 (T. A. Barns), 1 7; Lufonso River, E. Luvua Valley, 5700 ft., II. 1922 (T. A. Barns), 1 7.

Uganda: Ketoma, 5000 ft., IV. 1903 (W. L. Doggett), 1 9.

Kenya: Nairobi, 4. V. 1905 (F. J. Jackson), 1 3; all in British Museum (Natural History).

Distribution: Ruwenzori.

Nola lindemannae sp. n. (Plate I, figs. 1, 2; Plate IV, figs. 20-22)

∂ 29—32 mm. Male antenna bipectinate to two-thirds of shaft, pectinations on proximal edge being two-thirds as long as those on distal edge, the latter being just subequal to diameter of eye. Female antenna ciliate, cilia equal in length to diameter of shaft. Female. Fore wing white to pale smoke gray irrorate with fuscous and ochraceous tawny, more densely in posterior distal fourth of medial area and in terminal fourth. Male, possibly aberrant, with a more drab ground colour; medial area and area distad of subterminal fascia densely irrorate with fuscous and ochraceous tawny; transverse fasciae fuscous black, as illustrated. Hind wing with a conspicuous discal spot.

Genitalia as illustrated. In the female the signum may be entire, as in fig. 20, or it may be partially or wholly divided into two.

Closely related to *Nola kennedyi* Fletcher (1958) from Ruwenzori, differing in the less densely and darkly irrorate fore wing and in the genitalia of both sexes; in the male in the smaller spine-like cornutus on the vesica; in the female in the sclerotized pattern of the ostium bursae and in the structure and shape of the ductus bursac.

Kilimandjaro, Bismarckhütte, 3000 m., 18. X. 1958 (C. Lindemann), 1♂, 2 ♀♀ including holotype and allotype.

Meru bei Momella, ca. 2200 m., 9. X. 1958 (C. Lindemann), 1 Q.

Nola kennedyi Fletcher ? subsp. (Plate I, fig. 3)

Nola kennedyi Fletcher, 1958, Ruwenzori Expedition 1952, 1 (4):59, figs. 6-8, 29, 30.

Kilimandjaro, Marangu, 1500 m., 23. X. 1952, 1 ♀.

Distribution: Ruwenzori.

Similar in size, colour and pattern to N. kennedyi minorata Fletcher (1958) and apparently identical in structure.

Nola spermophaga sp. n. (Plate I, fig. 7; Plate III, figs. 14-16)

Nola fovifera Hampson, 1911, Ann. Mag. nat. Hist., (8) 8:397 (part).

 \nearrow 19—20 mm.; \bigcirc 22—24 mm. Male antenna bipectinate to one-half of shaft, pectinations on proximal edge two-fifths as long as those on distal edge; distal pectinations just subequal to diameter of eye. Female antenna ciliate, cilia equal in length to diameter of shaft. Fore wing white irrorate with pinkish buff, drab and fuscous, very lightly proximad of postmedial fascia, densely distad of it; postmedial and subterminal fasciae marked by fuscous

dashes on veins, the former clearly, the latter weakly; proximal half of costa bister, fusing with orbicular spot of same colour; distal half of costa with three bister dashes. Hind wing white suffused with pinkish buff and drab, more densely terminad.

Genitalia as illustrated.

Distinct among African Nolinae in the slight, but clearly defined pattern of the costa and postmedial fascia of the fore wing and in the structure of the genitalia of both sexes.

Uganda: Kampala, larva on tip of maize cob; pupated 6.—8. VII., emerged 20. VII. 1929 (H. Hargreaves), $1 \circlearrowleft$; ibid., emerged 22. VII. 1929, $1 \circlearrowleft$; Kampala, on maize tassel seed, emerged 26. IX. 1930 (H. Hargreaves), $1 \circlearrowleft$; Kampala, 2. VIII. 1938 (H. Hargreaves), larva on seed head of sorghum, holotype \circlearrowleft and $2 \circlearrowleft$, including allotype; Kabale, VII. 1932 (G. H. E. Hopkins), $1 \circlearrowleft$; all in the British Museum (Natural History).

Belgian Congo: Elisabethville, 24. I. 1950 (Ch. Seydel), 1 \(\text{q}\) in Zool. Museum, Munich.

Gold Coast: Coomassie (H. Whiteside), $1 \circlearrowleft$; Bibianaha, 24.—26. X. 1911 (H. G. F. Spurrell), $1 \circlearrowleft$.

Cameroons: Bitje, IV.—V. 1912, wet season, 1 ♀; all in the British Museum (Natural History).

Nola conspicillaris sp. n.

(Plate I, fig. 4; Plate III, figs. 17, 18; Plate IV, fig. 19)

♂ 16 mm. Fore wing with fovea in distal posterior fourth of cell area; fovea consists of two discs, one proximal and one distal, narrowly connected by a bar, like a pair of spectacles; ground colour of wing pale pinkish buff irrorate with pinkish buff and cinnamon brown; densely irrorate with drab in distal third; an almost rectangular area of cinnamon brown and fuscous is situate between one-fourth and one-half costa; postmedial fascia black, marked on veins only; terminal fuscous spots at vein ends. Hind wing white to pale pinkish buff suffused with a very pale light drab, more densely terminad.

Genitalia as illustrated; those of male slightly asymmetrical.

A small species, distinctive in wing-shape, pattern and structure of both male fore wing and genitalia; despite presence of fovea, quite remote in genus *Nola* from *N. foveata* Hampson (1911).

Uganda: Kawanda, 21. IV. 1940 (T. H. C. Taylor), holotype ♂ in British Museum (Natural History).

A female specimen in the Zoological Museum, Munich (fig. 19) labelled "Go, Uelle District, Coll. Michell", but with browner hind wings, may be conspecific.

Nola monofascia Van Son

 $Nola\ major$ Hampson var. monofascia Van Son, 1933. Ann. Transvaal Mus., 15 (2):214, pl. 8:13.

Lindi, 300 m., 2. XII. 1958, $1 \circ$.

Distribution: Transvaal; Natal; S. Rhodesia.

Examination of the genitalia of the holotype of *Nola major* Hampson (1891), described from the Nilgiri Hills, has shewn them to be distinct from those illustrated as *major* by Van Son. The name *monofascia* should therefore be applied in the specific sense to *Nola major* Hampson Van Son *nec* Hampson.

Nola transitoria Van Son

Nola transitoria Van Son, 1933, Ann. Transvaal Mus., 15 (2): 216, pl. 6:7a, b.

Songea, Uwemba, 12. XI. 1958, 1 *-*.

Distribution: Transvaal; Natal.

This identification is based on a comparison of a genitalia slide with Van Son's description and figures; as the figure does not illustrate the aedeagus in any detail, an element of doubt remains.

Nola sp.

Meru, Momella, 1800 m., 5. X. 1958, 1 ...

Closely related to N. transitoria Van Son, having rather similar valve structure.

Nola pedata sp. n. (Plate I, fig. 8; Plate II, figs. 12, 13)

♂ 16 mm. Antenna bipectinate to two-thirds shaft; proximal pectinations one-half as long as the distal, which are equal in length to four-fifths diameter of eye. Fore wing white irrorate with pinkish buff and fuscous, densely in distal fourth, very sparsely elsewhere: costa narrowly pinkish buff and fuscous to just beyond one-half; postmedial fascia marked by fuscous spots on veins; fuscous terminal spots at vein ends; subterminal fascia poorly defined as a heavier sinuous shade, pale-edged distally, among the denser irroration of the terminal fourth; cilia broad, drab and pinkish buff. Hind wing white, very lightly suffused with pinkish buff and drab; cilia drab.

Genitalia as illustrated.

A species inconspicuous in colour and pattern, but with distinctive structure of valve and aedeagus.

Kilimandjaro, Marangu, 1500 m., 13. X. 1952 (Lindemann and Pav-litzki), holotype o.

Nola steniphona Van Son

Nola steniphona Van Son, 1933, Ann. Transvaal Mus., 15 (2): 213, pl. 6: 2a, b. Poliothripa niphostena Hampson, 1902, Ann. S. Afr. Mus., 2: 312 (nom. praeocc.). Kilimandjaro, Marangu, 1500 m., 15. XI. 1952, 1 3.

Nola sp.

Usambara-Berge, Sakarani, 1500 m., 15. XI. 1952, 1 ♀.

Roeselia melanosticta Hampson

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Explanation of Plate I

- Fig. 1. Nola lindemannae sp. n. allotype $\cite{(x 2)}$
- Fig. 2. Nola lindemannae sp. n. holotype of (×2)
- Fig. 3. Nola kennedyi Fletcher? subsp. $(\times 2)$
- Fig. 4. Nola conspicillaris sp. n. holotype \bigcirc ($\times 2$)
- Fig. 5. Celama undulata sp. n. allotype $Q \times Q$
- Fig. 6. Celama undulata sp. n. holotype \bigcirc (\times 2)
- Fig. 7. Nola spermophaga sp. n. allotype \mathcal{Q} ($\times 2$)
- Fig. 8. Nola pedata sp. n. holotype \circlearrowleft (×2)